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Stellingen

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Mechanisms in Non-Heme Iron Oxidation Catalysis

Juan Chen

1. Photochemistry may not be magic, but irradiation can be a magic tool if your thermal reactions do not work. It can lead to something exciting! (Chapter 2)
2. Just because a reactive species can do something, it doesn't mean that the species in question is actually responsible for the thing being done! (c.f. $\text{FeIV}=\text{O}$ and H_2O_2 , Chapter 6)
3. Radical-based chemistry does not necessarily lead to a complicated mixture of products; even a single product can be complex, though. (N4Py vs. MeN4Py in Chapter 4)
4. We like it when things work, but there is no point in feeling down when things do not work; frustration and setbacks are what we learn most from. (Chapter 6)
5. A multi-catalyst strategy involving several active species in a single reaction mixture is ambitious and challenging; using a single catalyst to do the same job can be more effective. (Chapter 3)
6. Photochemical reactivity is uncommon and hence photochemistry is often viewed as being clean since only one compound undergoes excitation; it is worth keeping in mind, though, that even if only a single reaction is observed there could be more than one species present that is photo-active. (Chapter 3)
7. The validity of a mechanism is time-dependent! (Chapter 5 and Chapter 6)
8. Comfort comes from unlikely sources: "Rejection is not the end of the world; there is also chocolate and a resubmission".

-----by Prof. Wesley R. Browne

9. Publications are like busses, you wait three and half years for one, and then three come along in a row.
10. The concept of an introductory essay is misleading, the best time to write a review of the field of your PhD project is neither at the start nor at the end, but in the middle of your PhD.